

# Billion BiPAC 7700NR2

## Setup Guide



# Modem reference & light status sheet

On the front of your modem you will notice a number of lights. The below table explains what each of these lights mean:



LABEL	ACTION	DESCRIPTION
<b>[1] Internet</b>	Solid Green	Device has connected to the Internet
	Blinking Green	Data flow
	Solid Red	Authentication failed
<b>[2] DSL</b>	Solid Green	DSL signal established
	Blinking Green	Trying to achieve DSL signal
	Off	No DSL signal
<b>[3] WPS</b>	Blinking Green	WPS in progress
<b>[4] WLAN</b>	Solid Green	Wireless connection enabled
	Blinking Green	Data flow
<b>[5] LAN (1-4)</b>	Blinking Green	Transmitting data
	Solid Green	Ethernet is connected
	Off	No Ethernet connection
<b>[6] Power</b>	Solid Green	Power is on
	Solid Red	Boot failure
	Off	Power is off

# 1. Getting started

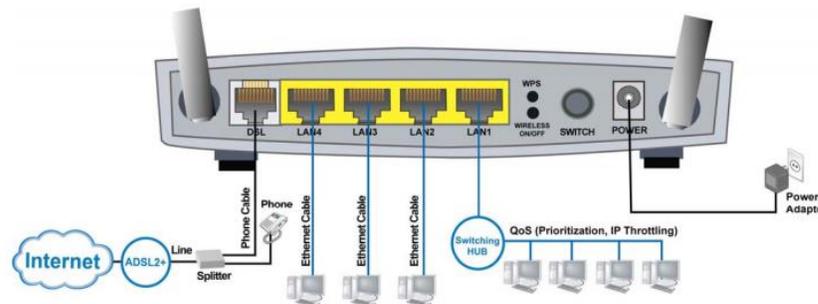
## Requirements

1. Any operating system is compatible, however depending on the version this may affect your Internet experience
2. Internet Explorer 6.0 or higher / Firefox 2.0 or higher
3. Ethernet network adapter
4. Wireless enabled computer (if you are using the wireless feature)

## Connecting the Billion BiPAC 7700NR2 to your computer

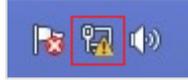
1. Connect the network cable to one of the yellow ports located at the back of the modem; the other end will connect to your computer
2. Connect a telephone cable to the grey port labeled DSL at the back of the modem; the other end will connect to your telephone wall socket
3. Finally, connect the power cable to your modem and the power adapter to your power point. Press the power button to the "ON" state

The diagram below shows how the modem connects physically to your phone line, computer and power point.



4. Now that the modem is connected to your computer, phone line, and is powered on, you will need to ensure that the lights on the modem indicate the following:
  - Power ON
  - DSL ON
  - LAN (1-4) ON or Blinking

A network icon will appear in your task bar, and you are now ready to setup your Internet connection.



Note: If you have already connected via Wi-Fi you will see the icon below instead.



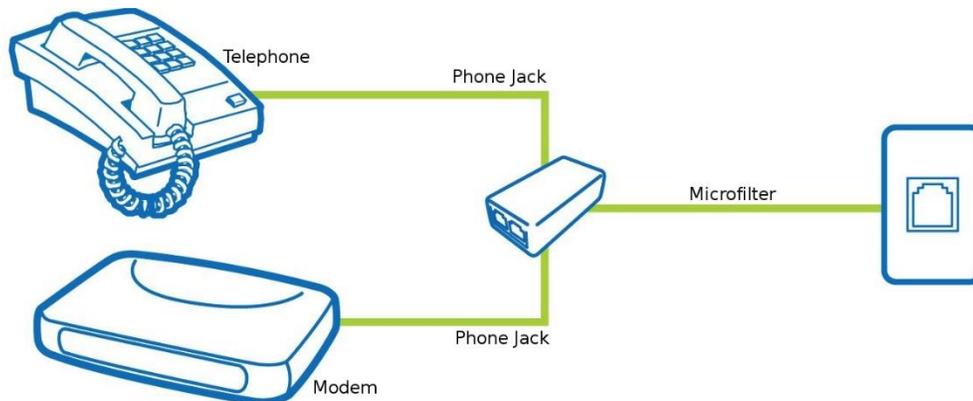
## Connecting filters

This filter is used when you need to plug a telephone and the modem in the same telephone wall socket.

There are three ports on the central filter as follows:

- Line This port connects to your telephone wall socket
- ADSL This port connects to the modem's grey port labeled ADSL
- Phone This port connects to a telephone or other telephony device

In the following diagram, you can see the splitter filter act as a double adapter and filter.



## 2. Configuring your modem

### Logging in to your modem

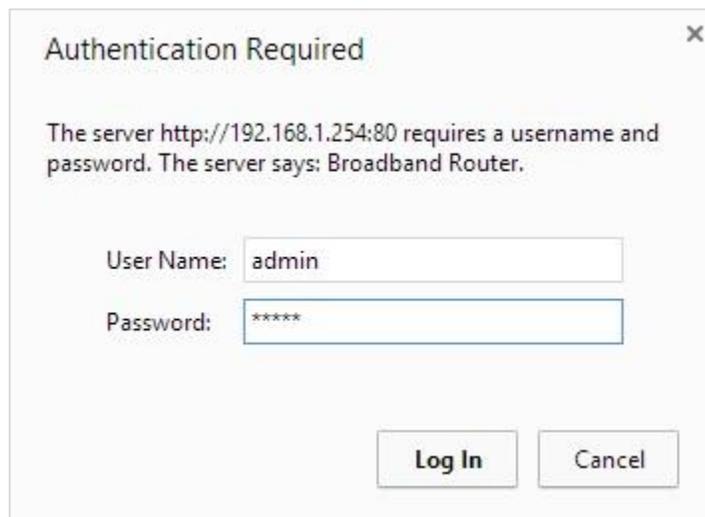
1. Open your web browser (typically Internet Explorer/Chrome/Firefox/Safari) and in the address bar enter the details:

- <http://192.168.1.254>

2. You will be asked for a Username and Password. Enter the following login details:

Username     **admin**

Password     **admin**



Authentication Required

The server <http://192.168.1.254:80> requires a username and password. The server says: Broadband Router.

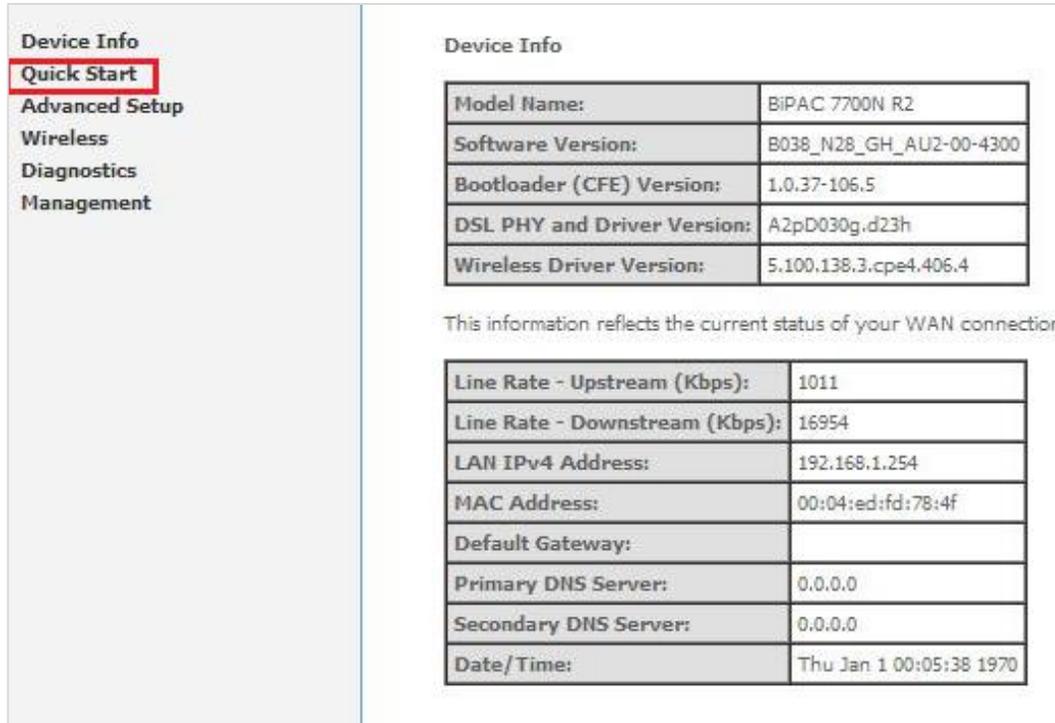
User Name:

Password:

Log In    Cancel

## Configuring your ADSL modem to access the Internet

1. Once you have logged into your modem, the Billion home page will appear as shown below. Click on Quick Start to begin the setup



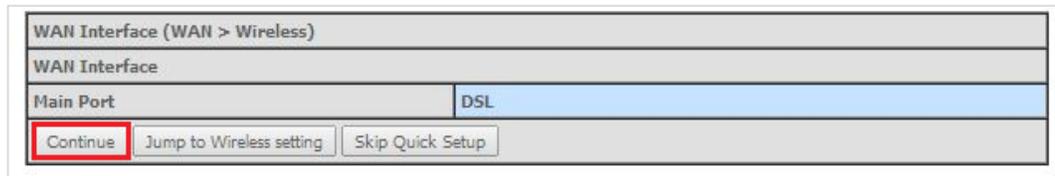
The screenshot shows the Billion modem's home page. On the left is a navigation menu with the following items: Device Info, Quick Start (highlighted with a red box), Advanced Setup, Wireless, Diagnostics, and Management. The main content area is titled 'Device Info' and contains a table with the following data:

Device Info	
Model Name:	BIPAC 7700N R2
Software Version:	B038_N28_GH_AU2-00-4300
Bootloader (CFE) Version:	1.0.37-106.5
DSL PHY and Driver Version:	A2pD030g.d23h
Wireless Driver Version:	5.100.138.3.cpe4.406.4

Below the table, it states: 'This information reflects the current status of your WAN connection'. This is followed by another table with the following data:

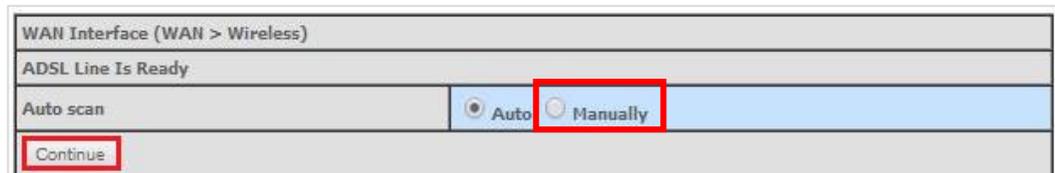
Line Rate - Upstream (Kbps):	1011
Line Rate - Downstream (Kbps):	16954
LAN IPv4 Address:	192.168.1.254
MAC Address:	00:04:ed:fd:78:4f
Default Gateway:	
Primary DNS Server:	0.0.0.0
Secondary DNS Server:	0.0.0.0
Date/Time:	Thu Jan 1 00:05:38 1970

2. Ensure the Main Port is set to DSL and click on Continue



The screenshot shows the 'WAN Interface (WAN > Wireless)' configuration page. The 'WAN Interface' section is expanded to show 'Main Port' set to 'DSL'. At the bottom of the page, there are three buttons: 'Continue' (highlighted with a red box), 'Jump to Wireless setting', and 'Skip Quick Setup'.

3. Select the Manually option for Auto Scan and click on Continue



The screenshot shows the 'WAN Interface (WAN > Wireless)' configuration page. The 'ADSL Line Is Ready' section is expanded to show 'Auto scan' with two radio button options: 'Auto' and 'Manually' (highlighted with a red box). At the bottom of the page, there is a 'Continue' button (highlighted with a red box).

4. Ensure the Layer2 Interface is ATM and then click Add

WAN Interface										
Select Layer2 Interface										
Layer2 Interface										ATM ▼
Interface	VPI	VCI	Category	Link Type	Connection Mode	IP QOS	Scheduler Alg	Queue Weight	Group Precedence	Apply
Add										

5. Ensure the following settings are set and click Continue

- VPI/VCI 8/35
- Link Type EoA
- Encapsulation Mode LLC/SNAP-Bridging

Wan Interface (WAN > Wireless)			
Parameters			
VPI/VCI	8	0-255	35 [32-65535]
Link Type	EoA ▼ (EoA is for PPPoE, IPoE, and Bridge.)		
Encapsulation Mode	LLC/SNAP-BRIDGING ▼		
Continue			

6. Check the below settings are correct and click Continue

WAN Interface (WAN > Wireless)	
WAN Services	
Protocol	VPI/VCI 8/35 LLC/SNAP-BRIDGE ▼
Type	Bridging ▼
Description	br_0_8_35
Continue	

7. Enter the Username and Password that you have been provided and click Continue

WAN Interface (WAN > Wireless)	
WAN Services	
Protocol	VPI/VCI 8/35 LLC/SNAP-BRIDGE ▾
Type	PPP over Ethernet(PPPoE) ▾
Description	pppoe_0_8_35
Username	username
Password	password
Service Name	
Authentication Method	AUTO ▾
IPv4 Address	<input type="checkbox"/> Static
IP Address	0.0.0.0
Obtain DNS	<input checked="" type="checkbox"/> Automatic
Primary DNS	0.0.0.0
Secondary DNS	0.0.0.0
<input type="button" value="Continue"/>	

8. Once the settings have been successfully configured, you will now receive a message to configure your wireless connection

WAN Interface (WAN > Wireless)
Congratulations!
Your WAN port has been successfully configured.
<input type="button" value="Next to Wireless"/>

9. To configure the Wireless connection, ensure the following settings are entered:

- Wireless check box ticked to Enable
- SSID is named (this will be any name you wish to give to your Wireless Network. By default this is set to *wlan-ap*)
- Network Authentication: Mixed WPA2/WPA-PSK
- WPA2 Pre Shared Key: This will ensure that in order to connect to your wireless network a password will be required. Please enter a password between 8 - 63 characters; this can contain letters and numbers

Wireless (WAN > Wireless)	
Parameters	
Wireless	<input checked="" type="checkbox"/> Enable
SSID	<input type="text" value="wlan-ap"/>
Channel	<input type="text" value="1"/>
Network Authentication	<input type="text" value="Mixed WPA2/WPA-PSK"/>
WPA/WAPI Passphrase	<input type="password" value="*****"/> <a href="#">Click here to display</a>
<input type="button" value="Continue"/>	

10. You will now receive a message that the process is finished

Process finished
Success.

11. Once connected the Internet, the modem light will turn on and flash to indicate there is Internet traffic. Try browsing to a website such as [www.google.com](http://www.google.com) to test your connection

### 3. Connecting the Billion 7700NR2 to your devices using wireless

In the previous section you have configured the wireless connection for your modem.

Please use your Wi-Fi Network Name (SSID) and Pre Shared Key (Password) to connect to any wireless compatible devices you have.

#### How to connect to your Windows computer

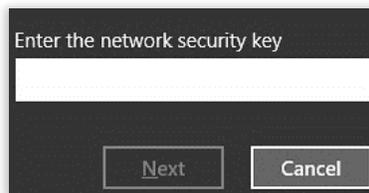
1. In Windows, click on the Network icon located at the bottom right hand corner of your screen as shown below. This will provide you with a list of available wireless networks in your range



2. Look for the default Wi-Fi Network Name (SSID) in your wireless networks list. The default Wi-Fi Network Name (SSID) is wlan-ap. If, in the previous section you have chosen your own SSID, this name will be shown in the list instead. Once you have selected the right connection, click Connect to continue. You may want to also tick the box to connect automatically, so that you will automatically connect to this Wi-Fi access point when you are within range



3. Enter the Security Key or Pre Shared Key and click OK, Connect, or Next to connect



4. Once connected it will indicate that you are now connected to wlan-ap or your chosen Wi-Fi Network Name (SSID)



5. Repeat steps 1-3 to add other wireless devices such as laptops, tablets, and smart phones